REMARKS

This Amendment is fully responsive to the non-final Office Action dated November 14, 2007, issued in connection with the above-identified application. Claims 1-4 were previously pending in the application. With this Amendment, claims 1-4 have been amended; and claims 5 and 6 have been added. Accordingly, claims 1-6 are now all the claims presently pending in the application. No new matter has been introduced by the amendments made to the claims or the newly added claims. Favorable reconsideration is respectfully requested.

To facilitate the Examiner's reconsideration of the present application, the Applicant has amended the specification and abstract. The changes to the specification and abstract include minor editorial and clarifying changes. A substitute specification and abstract are included. Additionally, marked-up copies of the original specification and abstract are also included. No new matter has been added by the changes made to the specification and abstract.

In the Office Action, claims 1-4 have been rejected under 35 USC 102(b) as being anticipated by Kawahara (PCT Publication No. WO00/62275, the disclosure of which corresponds to U.S. Publication No. 2005/0237277 and U.S. Patent No. 7,071,902; hereafter "Kawahara").

The Applicants have amended independent claims 1 and 2 to help further distinguish the present invention over the cited prior art. For example, claim 1 now recites, in pertinent part, the following:

"An image correction method comprising:...

detecting a flat area in the frame having a gradational change between adjoining pixels in the frame smaller than a predetermined threshold by comparing gradation of the adjoining pixels in the frame;

determining a first portion of the boundary area located in the flat area;

providing the first portion of the boundary area with a diffusion process, while not providing a second portion of the boundary area with no diffusion process;

correcting a portion of the image signal corresponding to the first portion of the boundary area by a first correction method based on the diffusion process; and

correcting a portion of the image signal corresponding to the second portion of the boundary area by a second correction method different from the first correction method."

The features noted above in independent claim 1 are similarly recited in independent claim 2 (as amended). As amended, claim 2 is directed to an image correction device that includes structure for performing the detecting step, the determining step, the providing step, and the correcting steps noted above in claim 1 (as amended).

Support for the features noted above in independent claims 1 and 2 are fully supported by the Applicant's disclosure (see e.g., Figs. 1, and 5-7, and pgs. 6-9). Additionally, the Applicant maintains that these features are not disclosed or suggested by the cited prior art.

Specifically, Kawahara discloses an image display apparatus having a widened dynamic range of display that includes a motion detection circuit, a boundary detection circuit, a modulation circuit, and coding circuits for improving the display of an image.

In the Office Action, the Examiner relied specifically on ¶ [0083]-¶ [0086] and ¶ [0169]-¶ [0187] of Kawahara (i.e., referring to the disclosure of U.S. Publication No. 2005/0237277) for disclosing the claimed detection of a movement area and detection of a boundary area of claims 1 and 2. Additionally, the Examiner relied on ¶ [0081]-¶ [0086] (i.e., referring to the disclosure of U.S. Publication No. 2005/0237277) for disclosing the claimed image correction of claims 1 and 2.

Specifically, Kawahara at ¶ [0083]-¶ [0086] describes a motion detection circuit that detects a movement area based on the difference between pixels of two frames. Additionally, ¶ [0169]-¶ [0187] describes a boundary detection circuit that detects a boundary area of the movement area, and provides a motion detection signal to a modulation circuit. As described in Kawahara, the motion detection signal from the boundary detection circuit is representative of a boundary of motion and static areas within the movement area.

Additionally, Kawahara at ¶ [0081]-¶ [0086] discloses the use of different coding techniques to improve the appearance of an image based on whether a pixel has a static or motion status. More specifically, a selection circuit uses the motion detection signal, which indicates whether the pixel has a static or motion status, as a selection signal. In other words, the selection

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circuit selects a particular coding circuit for processing an image signal based on the selection signal.

As noted in the above discussion, Kawahara discloses detecting a movement area, detecting a boundary area, and providing different coding techniques based on whether pixels have a static or motion status. However, nothing in Kawahara discloses or suggests the following features of claims 1 and 2 (as amended):

1)   detecting a flat area in a frame having a gradational change between adjoining pixels in the frame smaller than a predetermined threshold by comparing gradation of the adjoining pixels in the frame;

2)   determining a first portion of a boundary area located in a flat area;

3)   providing the first portion of the boundary area with a diffusion process, and providing a second portion of the boundary area with no diffusion process;

4)   correcting a portion of the image signal corresponding to the first portion of the boundary area by a first correction method based on the diffusion process; and

5)   correcting a portion of the image signal corresponding to the second portion of the boundary area by a second correction method different from the first correction method.

Accordingly, Kawahara cannot provide the same advantages offered by the present invention. In particular, the image correction features of claims 1 and 2 noted above provide the clear advantage of avoiding problems associated with performing uniform image correction or diffusion at the boundary areas of an image (e.g., switch shock or other noise-like jitter). More specifically, the present invention identifies a flat area of a boundary area—where switch shock or other noise-like jitter is likely to occur—and provides more selective image correction or diffusion to that area. Thus, image correction is more selectively performed at the boundary area of an image, thus more effectively suppressing switch shock or other noise-like jitter.

Based on the foregoing, independent claims 1 and 2 (as amended) are not anticipated or rendered obvious by Kawahara. Likewise, claims 3-6 are not anticipated or rendered obvious by Kawahara based at least on their dependency from independent claims 1 and 2, respectively.

Moreover, dependent claims 5 and 6 are not anticipated or rendered obvious by Kawahara

based on their own merit. Both claims 5 and 6 are directed to image correction that includes the following features:

    1)   calculating a flat area by providing a logical NOT operation on an output from the gradational change detecting means; and

    2)   determining a first portion of the boundary area of a movement area by calculating a logical conjunction of a result from a movement boundary detecting means and the calculated flat area.

As noted above, Kawahara fails to disclose or suggest detecting a flat area or determining a first portion of the boundary area located in the flat area. Therefore, it logically follows that Kawahara also fails to disclose or suggest calculating a flat area, and determining a first portion of a boundary area based, in part, on the calculated flat area; as recited in claims 5 and 6.

Therefore, dependent claims 5 and 6 are not anticipated or rendered obvious by Kawahara based on their own merit.

In light of the above, the Applicant respectfully submits that all the pending claims are patentable over the prior art of record. The Applicant respectfully requests that the Examiner withdraw the rejections presented in the Office Action dated November 14, 2007, and pass the application to issue.

If there are any issues that the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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